United States

Department of the Interior

Bureau of Land Management

Miles City Field Office

Powder River Scoria

Categorical Exclusion (CX)
DOI-BLM-MT-C020-2013-0181-CX

For Further Information Please Contact:

Bureau of Land Management
Miles City Field Office
111 Garryowen Road
Miles City, Montana 59301
406-233-2800

Location of Proposed Action:

T.7 S., R.50 E.
Section 12, NE¼NW¼NW¼
Powder River County, Montana.
Totaling: 2.9 Acres

Background:

The proponent in this action is Powder River County Road Department (Powder River County), located in Broadus, Montana. The proposed action is to mine scoria from the lands described above. The permit would authorize up to 5 acres of disturbance for mining operations. Figure 1 is an aerial-photo (dated mid-2011) of the proposed action area. The proposed action area is an existing scoria pit and road located on a fee surface with BLM minerals.

Denbury Resources has recently purchased mineral rights to redevelop the Belle Creek Oil Field, the majority of which is located in the southeastern corner of Powder River County. In early 2013 the company started injecting oil wells with carbon dioxide in order to increase production. The Billings Gazette reported that a pipeline is being built from Central Wyoming to the Belle Creek field, and the entire Belle Creek project is scheduled to last through 2019. Due to the Denbury Resources project, the amount of traffic on Powder River County roads in 2013 is larger compared to previous years, and this increased rate of traffic is expected to remain constant through the end of the project in 2019.

Denbury vehicle traffic has already damaged the current county road surfaces and Powder River County needs an affordable source of scoria to make repairs. The new pit located near Baking Powder Road will meet this need, providing between 30,000 to 50,000 cubic yards of scoria to maintain 50 miles of roadway for the next decade. The nearest alternate scoria source is approximately 21 miles further away from the Belle Creek Oil Field. By using the new pit, Powder River County expects to save approximately $20,000 per year in fuel, labor, materials and vehicle wear.

The County would be responsible for all operations at the pit as well as reclamation of the scoria pit and other associated areas of surface disturbance. This project is within a VRM Class II management objective. The objective of this class is to retain the existing character of the landscape. The level of change to the characteristic landscape should be low. Management activities may be seen, but should not attract the attention of the casual observer. Any changes must repeat the basic elements of form, line, color, and texture found in the predominant natural features of the characteristic landscape. Powder River County plans to use this pit for the foreseeable future (10+ years).

Description of Proposed Action:

The Proposed Action would consist of using a backhoe, bulldozer or similar equipment to excavate material from the pit. Powder River County currently owns a crusher and is purchasing a replacement in September 2013; one is expected to be on the mining site only during active operations. The material could be screened and-or crushed using a gravel crusher and a grizzly screen or other classifier for the purpose of restricting the size of material entering the screen.

The material would be loaded and hauled from the site by a front-end loader and dump trucks, with no drilling or blasting. The material is an in situ scoria deposit.

No materials or equipment would be stored at the site except when Powder River County is actively mining and hauling material from the site. These time periods would typically last a few weeks or less. Sedimentation and/or erosion control structures would be installed and maintained as necessary to prevent excessive sediment loss from the site. Powder River County would be responsible for eradicating all weeds at the site and ensuring that material used from the pit would not introduce weeds into other locations. Powder River County would ensure that the site remains weed free for a term of 5 years after the permits expire. In addition, all vegetation and the upper one foot of material (rock/topsoil) from the work area would be stripped and stockpiled at the site's perimeter. This material would be clearly labeled with signs and is not available for disposal. This stockpile would be "hidden" from site if at all possible. Every attempt would be made to blend in with the surrounding landscape using existing lines, colors, form, etc.

Powder River County would be solely responsible for operating and maintaining the site in a safe and prudent manner. In particular, Powder River County would ensure that no unstable slopes are left unattended, and that the operations would not pose any hazards to the nearby Baking Powder Road. Powder River County would use Best Mining Practices, e.g., stripping only the minimum amount of area necessary for immediate use, seeding topsoil stockpiles that would not be used for reclamation within 1 year, etc. Powder River County would obey all applicable laws and regulations, e.g., Mine Safety and Health Administration regulations regarding training plans, required levels of training, and occupational noise exposure (30 CFR 46, 62). Powder River County must also obtain a permit to mine from the Montana DEQ Opencut Bureau.

Reclamation would consist of removing all non-native items from the site. All areas of surface disturbance would be scarified, graded to blend with adjacent topography (including reducing all slopes to less than (2H: 1V), and seeded. Powder River County would rip and re-contour all roads to blend with the natural landform.

Stockpiled soil material would be re-applied to all disturbed areas. Any brush, rocks and other natural debris would be replaced over the disturbed area to blend with the adjacent, undisturbed areas and minimize visual impacts.

The goals of reclamation would be:

1) Stabilize and protect surface soils for the purpose of minimizing wind and soil erosion
2) Meet post mining land uses
3) Protect surface and ground water resources
4) Protect public health by eliminating hazards
5) Minimize and reduce long-term visual impacts
6) Re-grade and reseed site
7) Reclaim and re-vegetate operational roads and other disturbed areas
8) Control weeds at the site 5 years after permit expires

All disturbed areas on fee surface shall be seeded in accordance with the surface owner's requirements. BLM recommends the following BLM-approved seed mixture below for a

Ringling-Cabba association, with 15 to 50 percent slopes and a Shallow to Very Shallow Loam Ecological Site (Sw/VSw) RRU 58A-E.

Ecological Site: Shallow 58A or 60B 10-14 p. z.*							
Scientific Name	**NRCS Common Name**	**Variety**	**Ratio**	**avg. seeds/lb**	**PLS/ft^2**	**PLS/ac**	**PLS lb/ac**
Grasses							
Bouteloua curtipendula	sideoats grama	Killdeer	0.10	191,000	8	348,480	1.82
Hesperostipa comata	needle and thread	none	0.10	115,000	8	348,480	3.03
*Pascopyrum smithii***	western wheatgrass	Rosana	0.15	110,000	12	522,720	4.75
Pseudoroegneria spicata	bluebunch wheatgrass	Goldar	0.35	139,000	28	1,219,680	8.77
Forbs							
Echinacea angustifolia var. angustifolia	blacksampson echinacea	Bismarck	0.025	128,000	2	87,120	0.68
*Dalea purpurea var. purpurea****	purple prairie clover	Bismarck	0.05	210,000	4	174,240	0.83
Ratibida columnifera	upright prairie coneflower	stillwater	0.025	737,000	2	87,120	0.12
Shrubs							
Artemisia frigida	prairie sagewort	none	0.05	4,536,000	4	174,240	0.04
Krascheninnikovia lanata	winterfat	Open Range	0.05	56,700	4	174,240	3.07
Rhus trilobata var. trilobata	skunkbush sumac	Big Horn	0.10	20,300	8	348,480	17.17
Total			**1.00**		**80**	**3,484,800**	**40.29**

*Broadcast seed rate (preferred method). Cut rate in half if drill seeding.

**Thickspike wheatgrass (Elymus lanceolatus ssp. lanceolatus), variety Critana, may be substituted for western wheatgrass.

***White prairie clover (Dalea candida var. oligophylla), preferred variety Antelope, or American vetch (Vicia americana) can be substituted for purple prairie clover.

****The recommended drill seeding rate for large seeded species is 20 PLS/ft^2. The recommended drill seeding rate for small seeded species (most BLM seed mixes) is 30-40 PLS/ft^2. Broadcast or aerial seedings are recommended at the rate of 60-80 PLS/ft2 (approx. double the drilled rate).

The re-vegetation component of reclamation would be considered complete when the native plant community is self-perpetuating and similar to adjacent undisturbed lands. Species composition, richness, and total ground cover would be appropriate for the native plant community with at least at 60% perennial native vegetation. All reclamation activities would be completed by the expiration date of Powder River County's Final Permit, except for any necessary continued re-seeding and weed control activities. Seed application procedures would follow established protocols and best knowledge regarding reclamation of sand and gravel pits.

Pursuant to goal 8 described above, Powder River County would be responsible for ensuring that invasive non-native plant species associated with mining are not allowed to establish or spread at the site. Each spring for 5 years after termination of operations the primary operators would survey the site for invasive plant species. Powder River County would employ a licensed herbicide applicator to treat the site for weed infestations. Additional weed control could include hand removal or other appropriate biological control. Weed treatments would be consistent with the BLM Miles City Field Office and the Powder River County Noxious Weed Control programs.